Table 1. Shows the differences between old and new device responses (for abstract P3-964).

	Old device $n=23$	New device $n=20$	P
General scale	Very easy 56.5%	Very easy 70%	ns
Preparation (three questions)	Very easy 55.1%	Very easy 73.3%	**< 0.05**
Fixing dose (three questions)	Very easy 63.8%	Very easy 70%	ns
Injection (four questions)	Very easy 46.7%	Very easy 66.25%	**< 0.05**
Maintenance (two questions)	Very easy 69.6%	Very easy 87.5%	ns

score was <2. With the new device the average scale was 1.7 and 80% of patients scored < 2 (P: ns) **Conclusion:** The new device analysed has good acceptance among patients. Preparation and injection is easier with the new device. One of the most important effects is the increase in self-administration.

P3-965

Effect of Human Growth Hormone on Growth Rate of Short Stature Children with Low Birth Weight

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Background: If children with intrauterine growth retardation (IUGR) are stunt after birth, they will not have the desired height. Short stature is not fatal but affects personality and social and physical development of children. **Objective and hypotheses:** The aim of this study was to determine the effect of human GH on growth rate of short stature children with history of low birth weight. **Method:** This study was conducted on 148 children (3 – 13 years old), 106 girls and 42 boys, with diagnosis of IUGR and a height SD score of −2 SD or less in Qazvin, Iran. Parents' height was in the normal range for adults. Other causes of short stature were ruled out. The study subjects were treated with 4 IU/m^2 per day GH for at least 6 months. Height growth rate was measured and compared before and after the treatment. **Results:** At the start of the study mean age was 8.73 ± 2.84 year. Height growth rate was 0.41 ± 0.17 and 0.87 ± 0.23 cm/month before and after the treatment, respectively and the difference was statistically significant. Height SD score was significantly decreased. Furthermore, the results of boys and girls were not statistically different (P< 0.001). **Conclusion:** GH therapy can improve height growth status in children with low birth weight.

P3-966

GH Treatment and First Year Response: A Retrospective Study

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Background: GH treatment is proven to increase adult final height in some pathology and first year response is assumed as an index of treatment's effectiveness. **Objective and hypotheses:** Identify the prevalence of each indication in children treated with GH in our hospital and evaluate the first year response to treatment. **Method:** We retrospectively analysed the files of 30 patients followed for short stature and on GH treatment, using WHO Growth data. For statistic analysis we used SPSS v21. **Results:** 56.7% of patients are girls and 43.3% are boys. They were referred with the mean aged of 8.3 ± 3.26 years and started GH therapy with 9.57 ± 3.23 years. GH deficiency (GHD) was diagnosed on 76.7%, Turner Syndrome (TS) on 16.7%, and small for gestation age (SGA) on 6.6%. The GHD and SGA patients had, before treatment, a mean Height (cm) SD of −2.76 ± 0.9 and a mean BMI SD of −0.42 ± 2.23. Bone age was delayed by 1.8 ± 1.01 years. All GHD patients were submitted to two GH stimulation tests: 25 did clonidine test, 20 L-Dopa test, and 4 the hypoglycaemia test (mean GH peaks: 5.8 ± 3.64, 3.7 ± 1.9 and 7.5 ± 3.5 ng/ml). After first year of treatment, on GHD and SGA patients, Height SD was −2.14 ± 0.85 and BMI SD was −0.2 ± 1.22. ΔHeight SD was 0.61 ± 0.45. Statistic significance was found between Height SD (P=0.001) and BMI SD (P=0.001) , before and after treatment. Patients with TS had initially a Height SD of −3.12 ± 0.8 and BMI SD of −1.2 ± 0.66 and after a year a Height SD of −2.36 ± 0.75 and BMI SD of −0.7 ± 0.25. The ΔHeight SD in these patients was 0.76 ± 0.05 cm. **Conclusion:** In our population the first year response to treatment was good. A follow-up study is important to evaluate the final stature.